

Title (en)

Process for manufacturing an embossing cylinder

Title (de)

Verfahren zur Herstellung eines Prägezylinders

Title (fr)

Procédé pour la production d'un cylindre d'emboutissage

Publication

EP 0886185 A3 19990901 (DE)

Application

EP 98109121 A 19980519

Priority

DE 19721524 A 19970522

Abstract (en)

[origin: JPH10333534A] PROBLEM TO BE SOLVED: To easily produce an embossing cylinder for embossing an optical diffraction foil by exposing a mantle face coated with a photoresist to form an image on the photoresist, developing the image, and treating the photoresist with a silicon org. compd. while tempering and irradiating the resist with UV rays. SOLUTION: A mantle face of a cylinder coated with a photoresist is exposed to from an image on the photoresist, and the image is developed to from a relief surface structure. After the developing process, the photoresist is treated with a silicon org. compd. while tempered and irradiated with UV rays. The photoresist is preferably developed in a wet alkaline developer or a water-contg. alkaline developer. Hexamethyldisiloxane is preferably used as the silicon org. compd., and the photoresist surface is exposed to floor light of UV rays and tempered at 100 to 160 deg.C while the reaction with the silicon org. compd. proceeds.

IPC 1-7

G03F 7/40; G03C 9/00; G03H 1/00

IPC 8 full level

G03F 7/38 (2006.01); **B41C 1/10** (2006.01); **G03F 7/00** (2006.01); **G03F 7/40** (2006.01); **G03H 1/02** (2006.01); **G03H 1/04** (2006.01);
G03H 1/18 (2006.01); **G03H 1/20** (2006.01)

CPC (source: EP)

G03F 7/001 (2013.01); **G03F 7/405** (2013.01); **G03H 1/028** (2013.01)

Citation (search report)

- [Y] US 3652274 A 19720328 - VERELST JOHAN LODEWIJK, et al
- [Y] WO 9201973 A2 19920206 - MCGREW STEPHEN P [US]
- [Y] US 5229258 A 19930720 - SEZI RECAI [DE], et al
- [A] DE 2930416 A1 19800514 - GUNINA GEB ROLDUGINA
- [A] US 4259369 A 19810331 - CANAVELLO BENJAMIN J, et al
- [A] US 4751170 A 19880614 - MIMURA YOSHIAKI [JP], et al
- [AD] DE 19523321 A1 19961031 - HSM GMBH [DE]
- [PA] DE 19623352 A1 19971218 - KURZ LEONHARD FA [DE]

Cited by

DE102004050984B3; WO0241080A3; WO0184599A3; US7309659B1; EP3569783A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

DE 19721524 A1 19981126; EP 0886185 A2 19981223; EP 0886185 A3 19990901; JP H10333534 A 19981218

DOCDB simple family (application)

DE 19721524 A 19970522; EP 98109121 A 19980519; JP 14073098 A 19980522